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SEARCH REQUEST FORM

Requester's Full Name: Jeffrey E. Russel Examiner #: 62785 Date: 9-7-2005

Art Unit: 1654 Phone Number: 2-0969 Serial Number: 10/782,268

Location (Bldg/Room#): REM 3D19 (Mailbox #): 3C18 Results Format Preferred (circle): PAPER DISK

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To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Activated Polyethylene Glycol Esters

Inventors (please provide full names): F. Tjoeng

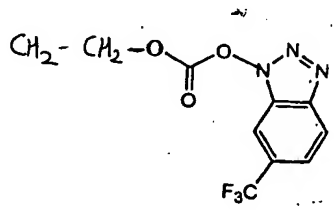
Earliest Priority Date: 2-19-2004

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only ***Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.***

Please search the following partial structure:



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JER

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Searcher: _____	____ NA Sequence (#)	____ STN ____ Dialog
Searcher Phone #: _____	____ AA Sequence (#)	____ Questel/Orbit ____ Lexis/Nexis
Searcher Location: _____	____ Structure (#)	____ Westlaw ____ WWW/Internet
Date Searcher Picked Up: _____	____ Bibliographic	____ In-house sequence systems
Date Completed: _____	____ Litigation	____ Commercial ____ Oligomer ____ Score/Length ____ Interference ____ SPDI ____ Encode/Transl
Searcher Prep & Review Time: _____	____ Fulltext	____ Other (specify)
Online Time: _____	____ Other	

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     (FILE 'REGISTRY' ENTERED AT 20:12:33 ON 29 AUG 2005)

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L13         597 SEA SSS FUL L11
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     FILE 'HCAPLUS' ENTERED AT 20:24:22 ON 29 AUG 2005
L16          36 SEA ABB=ON  PLU=ON  L15
                D STAT QUE L16
                D IBIB ABS HITSTR L16 1-36


     FILE HCAPLUS

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      This file contains CAS Registry Numbers for easy and accurate
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     DICTIONARY FILE UPDATES:  28 AUG 2005  HIGHEST RN 861926-07-0

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

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FILE COVERS 1907 - 29 Aug 2005  VOL 143 ISS 10
FILE LAST UPDATED: 28 Aug 2005  (20050828/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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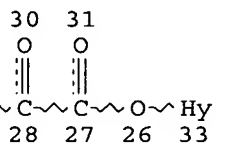


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   7

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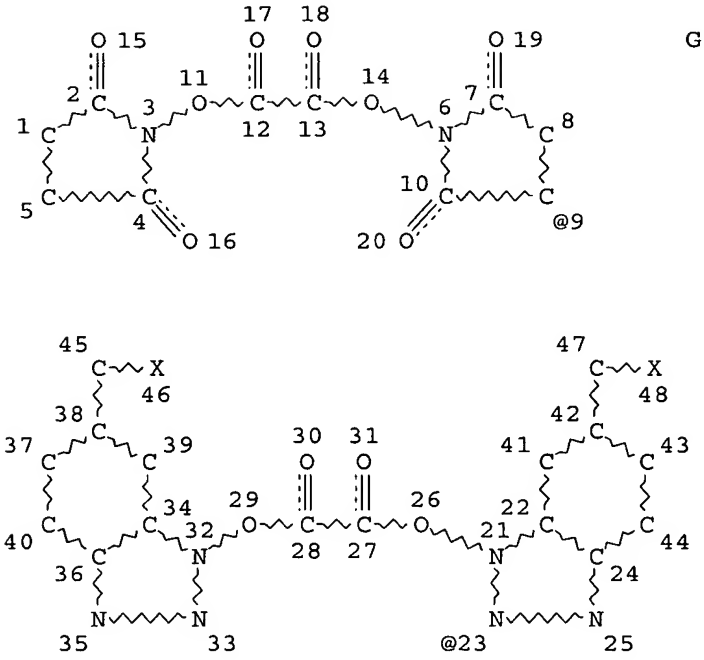

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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 49

STEREO ATTRIBUTES: NONE
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L16 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L15

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L16 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:238563 HCAPLUS
DOCUMENT NUMBER: 142:294340
TITLE: Compositions and methods using dendrimer-treated microassays
INVENTOR(S): Huang, Haoqiang; Braman, Jeffrey Carl
PATENT ASSIGNEE(S): Stratagene California, USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp., Cont. of U.S. Ser. No. 863,748, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

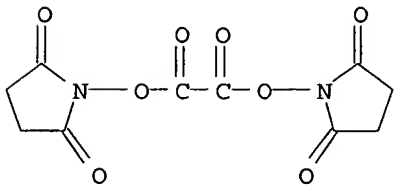
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005059068	A1	20050317	US 2004-938807	20040910
PRIORITY APPLN. INFO.:			US 2001-863748	B1 20010523

AB The present invention provides a chemical reactive surface able to covalently react with substances containing a hydroxyl group and/or amine group, comprising a solid surface having an activated dendrimer polyamine covalently bonded to said surface through a silane containing reagent, wherein the dendrimer polyamine can covalently bind the substance comprising a hydroxyl group and/or amino group. The present invention further provides a method for producing chemical reactive surfaces for binding moieties comprising a hydroxyl group and/or amine group, as well as kits comprising the chemical reactive surface of the invention.

IT **57296-03-4**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(compns. and methods using dendrimer-treated microassays)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:681425 HCAPLUS
DOCUMENT NUMBER: 141:207947
TITLE: Activated polyethylene glycol esters for biologically active conjugates
INVENTOR(S): Tjoeng, Foe S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004162388	A1	20040819	US 2004-782268	20040219
WO 2004074345	A2	20040902	WO 2004-IB424	20040213
WO 2004074345	A3	20050120		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,

GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

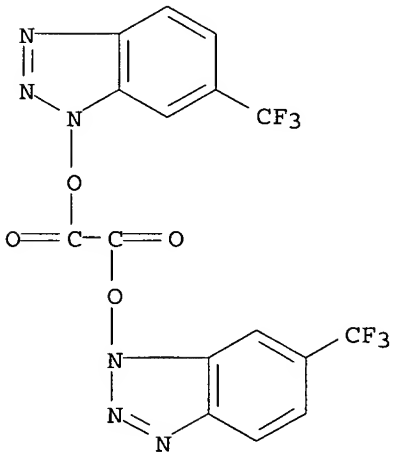
PRIORITY APPLN. INFO.: US 2003-448354P P 20030219

AB A method of producing an activated ester of polyethylene glycol (PEG), comprises the step of activating PEG with N,N'-disuccinimidyl oxalate or 1,1'-bis[6-(trifluoromethyl)benzotriazolyl] oxalate under the appropriate conditions. The polyethylene glycol carbonate active esters are useful for the PEGylation of biol. active and pharmaceutically useful peptides and proteins. The invention involves the use of activated carbonate and oxalate esters in the formation of polyethylene glycol mixed carbonate active esters that then react with a linker or directly with a target peptide or protein.

IT **93605-83-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(activated polyethylene glycol esters for biol. active conjugates)

RN 93605-83-5 HCAPLUS

CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:737777 HCAPLUS

DOCUMENT NUMBER: 139:255398

TITLE: Dimeric tissue factor (TF) antagonist for treatment of coagulopathic related diseases

INVENTOR(S): Kjalke, Marianne; Jakobsen, Palle; Stennicke, Henning Ralf

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.

SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003076461	A2	20030918	WO 2003-DK151	20030312
WO 2003076461	A3	20040318		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003229018	A1	20031211	US 2003-386898	20030312
EP 1485476	A2	20041215	EP 2003-709668	20030312

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

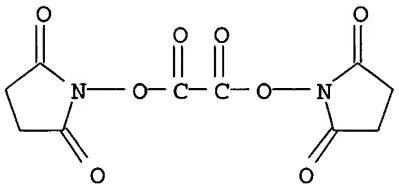
PRIORITY APPLN. INFO.:	DK 2002-373	A	20020312
	US 2002-365935P	P	20020319
	WO 2003-DK151	W	20030312

AB The invention relates to pharmaceutical compns. comprising dimer FVII polypeptides which bind and inhibit two tissue factor (TF) mols. simultaneously and their use of in treatment or prophylaxis of thrombotic or coagulopathic related diseases including vascular and inflammatory responses.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(dimeric tissue factor (TF) antagonist for treatment of coagulopathic related diseases)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2003:422015 HCAPLUS
DOCUMENT NUMBER:	138:401044
TITLE:	Feed additives and feed containing alkylenedicarboxylic acids for silkworm and livestock
INVENTOR(S):	Kamata, Masaki
PATENT ASSIGNEE(S):	Japan
SOURCE:	Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003159008	A2	20030603	JP 2001-362535	20011128
PRIORITY APPLN. INFO.:			JP 2001-362535	20011128

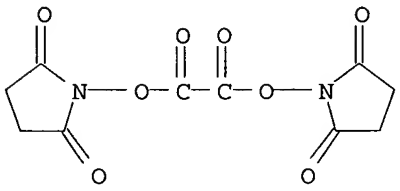
AB Additives for silkworm artificial feed and livestock feed contain (1) (a) ≥1 selected from alkylenedicarboxylic acids, asparagine, aspartic

acid, glutamine, glutamic acid, proline, hydroxyproline, and cystine and (b) ≥1 selected from alkaline inorg. Ca or Mg compds. and succinimide, (2) disuccinimidyl esters of alkylenedicarboxylic acids, or (3) succinimide or disuccinimidyl oxalate. Feed containing (1), (2), or (3) are also claimed. Feeding silkworm with feed, prepared by kneading a composition containing succinimide, defatted soybean, cellulose, vitamin mixture, choline chloride, okara, β-sitosterol, vitamin C, citric acid, and potato starch with H2O, for 9 days significantly increased body weight of 3rd-instar silkworm.

IT **57296-03-4**
RL: AGR (Agricultural use); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(feed additives for silkworm and livestock containing alkylenedicarboxylic acids, their disuccinimidyl esters, specific amino acids, Ca or Mg compds., and succinimide)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:386157 HCAPLUS
DOCUMENT NUMBER: 138:398400
TITLE: Dicarboxylic acid salt additives which facilitate DNA amplification
INVENTOR(S): Kitabayashi, Masao; Komatsuhara, Shusuke; Nishiya, Yoshiaki; Oka, Masanori
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003144169	A2	20030520	JP 2001-349173	20011114
WO 2003042383	A1	20030522	WO 2002-JP11884	20021114
W: US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
EP 1452593	A1	20040901	EP 2002-780096	20021114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
US 2005069887	A1	20050331	US 2004-495581	20040514
PRIORITY APPLN. INFO.:			JP 2001-349173 A	20011114
			JP 2002-311596 A	20021025
			WO 2002-JP11884 W	20021114

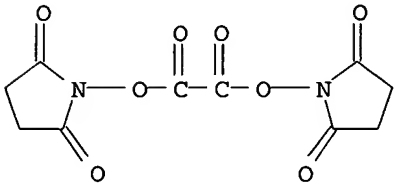
AB Additives for DNA amplification comprising an anion donor (in particular,

a dicarboxylic acid salt) effective in facilitating the synthesis of DNA in an enzymic reaction, are disclosed. Inorg. salts, alkaline salts, alkaline earth salts, or ammonium salts of dicarboxylic acid, such as oxalate ion, malonate ion and the maleic acid ion are effective. The reagent also includes primers, RNA or DNA template, reverse transcriptase or DNA polymerase, buffers and salts. Potassium oxalate, sodium oxalate, sodium malonate, and sodium maleate were effective in facilitating PCR reaction using various types of DNA polymerase.

IT **57296-03-4**
RL: MOA (Modifier or additive use); USES (Uses)
(dicarboxylic acid salt additives which facilitate DNA amplification)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:418143 HCAPLUS

DOCUMENT NUMBER: 138:158644

TITLE: 5-Aminosalicyclic acid permeability enhancement by a pH-sensitive EVAL membrane

AUTHOR(S): Shieh, Ming-Jium; Lai, Ping-Shan; Young, Tai-Horng

CORPORATE SOURCE: College of Medicine and College of Engineering, Institute of Biomedical Engineering, National Taiwan University, Taipei, 10016, Taiwan

SOURCE: Journal of Membrane Science (2002), 204(1-2), 237-246
CODEN: JMESDO; ISSN: 0376-7388

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

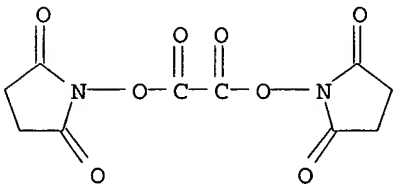
AB A pH-sensitive membrane for colon-specific drug delivery was synthesized by the covalent bonding of glycine on the poly(ethylene-co-vinyl alc.) (EVAL) membrane via isocyanation of surface hydroxyl groups and subsequent conversion to activated ester. The processes of surface modification would not change the membrane structure under the observable detection sensitivity of the SEM. Both the EVAL membrane and the glycine-immobilized EVAL membrane appeared as fairly dense structures almost without any holes existing in the membrane. Permeation of 5-aminosalicylic acid (5-ASA) through the prepared membranes was studied at pH 2.0 and 7.4 at 37°. Regardless of the EVAL membrane and the glycine-immobilized EVAL membrane, the 5-ASA permeation at pH 2.0 was very conspicuously small, which agrees with the application of colon-specific drug delivery that drug is protected in the acidic environment. In contrast, the relative values of the 5-ASA permeation through the EVAL membrane and the glycine-immobilized EVAL membrane after 24 h at pH 7.4 and 2.0 were 6 and 41 times, resp. Clearly, the significant increase in the 5-ASA permeability of the glycine-immobilized EVAL membrane is suitable for local treatment of ulcerative colitis. Furthermore, the mechanism of 5-ASA permeation through the EVAL membrane and the glycine-immobilized EVAL membrane at pH 2.0 and 7.4 was discussed. This

study shows the 5-ASA permeability enhancement by the EVAL and the glycine-immobilized EVAL membrane in the neutral environment is ascribed to totally different mechanisms.

IT **57296-03-4D**, reaction products with EVAL isocyanatohexa carbamate and glycine
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(5-Aminosalicylic acid permeability enhancement by a pH-sensitive EVAL membrane)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:301532 HCAPLUS
DOCUMENT NUMBER: 136:309257
TITLE: Feed additives and feeds containing alkylenedicarboxylic acids for silkworm and livestock
INVENTOR(S): Kamata, Masaki
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002119223	A2	20020423	JP 2000-316378	20001017

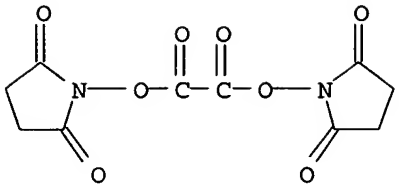
PRIORITY APPLN. INFO.: JP 2000-316378 20001017

AB The feed additives contain either of (1) (a) alkylenedicarboxylic acids having even C number and (b) inorg. alkaline Ca or Mg compds. and/or succinimide,
(2) disuccinimidyl esters of the dicarboxylic acids, or (3) succinimide or disuccinimidyl oxalate. Feeds containing the additives show feeding-stimulating and growth-promoting effect. A feed containing suberic acid and Ca(OH)2 was fed to silkworm to result in body weight after 9 days 38.9 mg, vs. 8.1 mg, for control.

IT **57296-03-4**
RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(feed additives for silkworm and livestock)

RN 57296-03-4 HCAPLUS

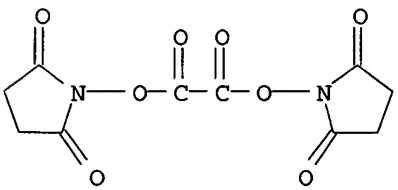
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:676214 HCAPLUS
DOCUMENT NUMBER: 135:218713
TITLE: Electrophotographic photoconductor showing reduced residual voltage and excellent image quality
INVENTOR(S): Takeshima, Motohiro; Nabeta, Osamu
PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co. Ltd., Japan
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10108488	A1	20010913	DE 2001-10108488	20010222
JP 2001249471	A2	20010914	JP 2000-62636	20000307
US 2001031410	A1	20011018	US 2001-794259	20010227
CN 1312491	A	20010912	CN 2001-111217	20010307

PRIORITY APPLN. INFO.: JP 2000-62636 A 20000307
OTHER SOURCE(S): MARPAT 135:218713
AB The title electrophotog. photoconductor contains a charge transport substance represented by R1OCOXR2 (R1, R2 = aromatic hydrocarbon, aliphatic hydrocarbon, polycyclic aromatic ring, heterocycle; X = O, CO, COO). The electrophotog. photoconductor shows reduced residual voltage and excellent image quality.
IT **57296-03-4**
RL: DEV (Device component use); USES (Uses)
(charge transport compound in electrophotog. photoconductor showing reduced residual voltage and excellent image quality)
RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:228928 HCAPLUS
DOCUMENT NUMBER: 134:247248

TITLE: Bivalent inhibitor of FVIIa/tissue factor/FXa complex and therapeutic use
INVENTOR(S): Freskgaard, Per-Ola; Jakobsen, Palle
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021661	A1	20010329	WO 2000-DK516	20000919

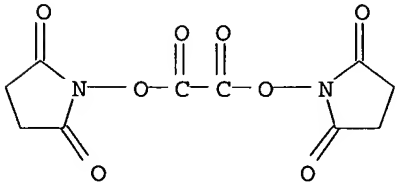
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DK 1999-1333 A 19990920
US 1999-159773P P 19991015

AB A bivalent serine protease inhibitor of coagulation factor VIIa and factor Xa is provided which comprises: (i) a first serine protease inhibitor binding to factor VIIa; (ii) a linker moiety; and (iii) a second serine protease inhibitor binding to factor Xa. Also provided are a method for inhibiting the two different serine proteases factor VIIa and factor Xa simultaneously and selectively when the two serine proteases becomes localized on the membrane protein tissue factor (TF). The compds. and method are useful for prevention or treatment of FVIIa/TF-related diseases or disorders, e.g. deep venous thrombosis, arterial thrombosis, post surgical thrombosis, coronary artery bypass graft (CABG), percutaneous transdermal coronary angioplasty (PTCA), stroke, tumor metastasis, inflammation, septic chock, hypotension, ARDS, pulmonary embolism, disseminated intravascular coagulation (DIC), vascular restenosis, platelet deposition, myocardial infarction, angiogenesis, or the prophylactic treatment of mammals with atherosclerotic vessels at risk for thrombosis. Preparation of e.g. octanedioic acid bis-[(1-(1-(1-chloroacetyl-4-guanidinobutylcarbamoyl)2-phenylethylcarbamoyl)2-phenylethyl)amide] is described.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction; bivalent inhibitor of FVIIa/tissue factor/FXa complex and therapeutic use)

RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

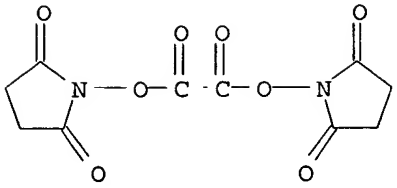
L16 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:351493 HCAPLUS
DOCUMENT NUMBER: 133:18014
TITLE: Derivatization of support surfaces for binding biopolymers
INVENTOR(S): Beier, Markus
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung Des Offentlichen Rechts, Germany
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000029373	A2	20000525	WO 1999-DE3692	19991117
WO 2000029373	A3	20001228		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19853242	A1	20000525	DE 1998-19853242	19981118
EP 1131281	A2	20010912	EP 1999-962063	19991117
EP 1131281	B1	20050727		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6905724	B1	20050614	US 2001-856341	19991117
PRIORITY APPLN. INFO.:			DE 1998-19853242 A	19981118
			WO 1999-DE3692 W	19991117

AB A functional group is activated on the surface of a support, e.g., microscopic glass slide or polypropylene membrane, by reaction with an activating reagent and then reacted with an amine component. A support with a dendritic polymer structure on its surface and the use of such support for binding biopolymers are also claimed. For example, amino-functional glass substrates (slides) were treated in sequence with 4-O2NC6H4OCOCl in CH2Cl2 in the presence of (Me2CH)2NEt, with tetraethylenepentamine in DMF, with 4-O2NC6H4OCOCl as above and, finally with 1,4-bis(3-aminopropoxy)butane in DMF to give a title substrate.

IT **57296-03-4**
RL: NUU (Other use, unclassified); USES (Uses)
(derivatization of support surfaces for binding biopolymers by activating support-bound functional groups with)

RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:191202 HCAPLUS
DOCUMENT NUMBER: 132:204063
TITLE: methods for mol. cloning using rolling circle amplification involving applications of affinity tags
INVENTOR(S): Lizardi, Paul M.
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015779	A2	20000323	WO 1999-US21291	19990915
WO 2000015779	A3	20000810		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2342838	AA	20000323	CA 1999-2342838	19990915
AU 9959250	A1	20000403	AU 1999-59250	19990915
AU 770993	B2	20040311		
EP 1114184	A2	20010711	EP 1999-946952	19990915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6287824	B1	20010911	US 1999-396281	19990915
JP 2002525049	T2	20020813	JP 2000-570306	19990915
US 2002048761	A1	20020425	US 2001-853379	20010511

PRIORITY APPLN. INFO.:

US 1998-100327P	P	19980915
US 1999-396281	A1	19990915
WO 1999-US21291	W	19990915

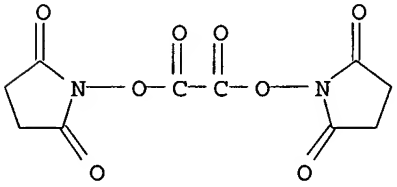
AB Disclosed are reagents and a method for efficient in vitro mol. cloning of nucleic acid mols. of interest. Because the method is entirely in vitro , it can be automated and scaled-up in ways that are not possible in cell-based mol. cloning. The method involves insertion of a nucleic acid mol. of interest in a linear vector to form a circular vector where one strand is continuous and the other strand is discontinuous (containing a gap). The second strand contains an affinity tag which is streptavidin or a reactive amine. The affinity target is phenylene diisothiocyanate, disuccinimidylcarbonate, disuccinimidyloxalate or dimethylsuberimidate. The first strand is separated from the by binding the affinity tag to a

substrate, denaturing the first and second strands prior to, simultaneous with, or following binding, and separating the first strand from the substrate. In this way the affinity tag is covalently coupled to the surface. The second strand of the linear vector contains at least one overlap, part of the overlapping portions of the second strand are complementary, and the 3'-end of the overlap extends beyond the part of the overlapping portions that are complementary. The continuous strand of the circular vector is then amplified by rolling circle replication, amplifying the inserted nucleic acid mol. in the process. The amplification is rapid and efficient since it involves a single, isothermic reaction that replicates the vector sequences exponentially. The amplification process is amenable to automation where multiple replications are carried out simultaneously in a small area. A replica of the amplification reactions is also made by transferring part of each amplification reaction to form a replica amplification reaction. In this way, any number or all of the amplification reactions are ordered as an array of reaction droplets or in an array of reaction vessels. The ligation reaction is divided by spreading the ligation reaction onto a surface to form a spread, and wherein the sep. amplification reactions are the locations of circular vectors on the surface after spreading. Hybridization probes are used to choose and retrieve specific clones. Tandem sequence DNA is amplified by strand displacement replication to form tertiary tandem sequence DNA and utilizes a DNA primer to do so. The amplified nucleic acid can be used for any purpose and in any manner that nucleic acid cloned or amplified by known methods can be used. This includes sequencing, probing, restriction anal., subcloning, transcription, hybridization or denaturation anal., further amplified, and storage for future use or anal. Convenient figures 1A, 1B, 1C, 2A, 2B, 3 and 4 are provides with further clarify the specific methods described here.

IT **57296-03-4**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(affinity target as; methods for mol. cloning using rolling circle amplification involving applications of affinity tags)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:309643 HCAPLUS

DOCUMENT NUMBER: 131:126035

TITLE: Versatile derivatization of solid support media for covalent bonding on DNA-microchips

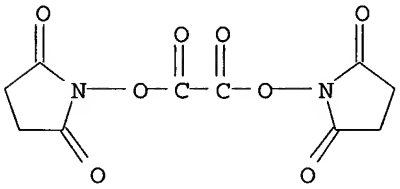
AUTHOR(S): Beier, Markus; Hoheisel, Jorg D.

CORPORATE SOURCE: Functional Genome Analysis, Deutsches Krebsforschungszentrum, Heidelberg, D-69120, Germany

SOURCE: Nucleic Acids Research (1999), 27(9), 1970-1977
CODEN: NARHAD; ISSN: 0305-1048

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal
LANGUAGE: English
AB A chemical was developed that permits on DNA-arrays both the covalent immobilization of pre-fabricated nucleic acids-such as oligonucleotides, PCR-products or peptide nucleic acid oligomers-and the in situ synthesis of such compds. on either glass or polypropylene surfaces. Bonding was found to be stable even after some 30 cycles of stripping. Due to a dendrimeric structure of the linker mol., the loading can be modified in a controlled manner and increased beyond the capacity of glass without neg. effects on hybridization efficiency. Also, the chemical warrants the modulation of other surface properties such as charge or hydrophobicity. Preferentially, attachment of nucleic acids takes place only via the terminal amino-group of amino-modified oligonucleotides or the terminal hydroxyl-group of unmodified mols. so that the entire mol. is accessible to probe hybridization. This derivatization represents a support chemical versatile enough to serve nearly all current forms of DNA-arrays or microchips.
IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(surface activation for oligonucleotide immobilization with; versatile derivatization of solid support media for covalent bonding on DNA-microchips)
RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

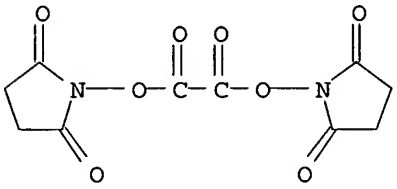
L16 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:696095 HCAPLUS
DOCUMENT NUMBER: 127:358760
TITLE: Synthesis of a bifunctional chelating agent, (1S*,2S*,4R*)-4-aminocyclohexyl-1,2-diamino-N,N,N',N'-tetraacetic acid, and general method of linker introduction
AUTHOR(S): Gestin, J. F.; Benoist, E.; Loussouarn, A.; Mishra, A. K.; Faivre-Chauvet, A.; Chatal, J. F.
CORPORATE SOURCE: INSERM U 463 (ex U 211), Chimie-immunochimie, Nantes, 44035, Fr.
SOURCE: New Journal of Chemistry (1997), 21(9), 1021-1026
CODEN: NJCHE5; ISSN: 1144-0546
PUBLISHER: Gauthier-Villars
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Indium-111 (111In) is a radioelement whose radiophys. characteristics are perfectly suitable for diagnostic applications, but are nevertheless limited by a high liver uptake. Undesirable liver uptake can be reduced either by using bifunctional chelating agents (BCA) to form stable chelates in vivo or by introducing linkers between the ligand and the

antibody that can serve as a target for specific hepatic enzymes. Various studies have shown that 111In chelate stability can be improved by the use of polyaminocarboxylic BCA and especially with 4-isocyanatocyclohexane-1,2-diaminotetraacetic acid (4-ICE). The purpose of our study was to synthesize (1S*,2S*,4R*)-4-aminocyclohexane-1,2-diamino-N,N,N',N'-tetraacetic acid, an analog of 4-ICE, associated with different bis-N-hydroxysuccinimide ester type bifunctional aliphatic linkers. We propose a simple method for access to perfectly defined BCA with or without potentially metabolizable functions.

IT **57296-03-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of a bifunctional chelating agent aminocyclohexyldiaminotetraacetic acid and general method of linker introduction)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:97772 HCAPLUS
DOCUMENT NUMBER: 126:192686
TITLE: Two-component chemiluminescent composition
INVENTOR(S): Chopdekar, Vilas M.; Schleck, James R.; Guo, Cheng; Hall, Amanda J.
PATENT ASSIGNEE(S): Jame Fine Chemicals, Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5597517	A	19970128	US 1996-640069	19960430
ZA 9703291	A	19971114	ZA 1997-3291	19970417
WO 9741187	A1	19971106	WO 1997-US6662	19970418
W: AU, BB, BR, CA, CN, IL, IS, JP, KR, LK, MX, NO, SG, TT, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9728064	A1	19971119	AU 1997-28064	19970418
EP 896610	A1	19990217	EP 1997-922377	19970418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1217010	A	19990519	CN 1997-194168	19970418
CN 1103804	B	20030326		
JP 2000509096	T2	20000718	JP 1997-538991	19970418

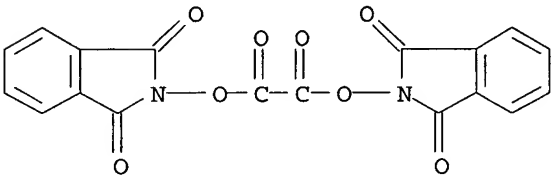
PRIORITY APPLN. INFO.: US 1996-640069 A 19960430
WO 1997-US6662 W 19970418

AB Chemiluminescent compns. comprise an oxalate component comprising an oxalate ester and a solvent, wherein the solvent comprises a propylene glycol dihydrocarbyl ether containing 1-3 propylene moieties and each hydrocarbyl moiety contains ≤8 carbon atoms and is independently selected from the group consisting of straight chain alkyl and branched chain alkyl groups; an activator component comprising a peroxide compound and a catalyst; and a fluorescer contained in the oxalate component, activator component, or in both the oxalate component and the activator component. The solvents used have a significantly greater solvating capacity for solvating the oxalate component than prior art solvents, allowing the overall volume of the two-component chemiluminescent compns. to be significantly reduced and a higher level of glow for a longer period of time to be attained together with significant cost redns.

IT **17447-57-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(two-component chemiluminescent compns. using propylene glycol dihydrocarbyl ether solvents)

RN 17447-57-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:428429 HCAPLUS
DOCUMENT NUMBER: 125:87210
TITLE: Preparation of amino acid derivatives as cholecystokinin receptor antagonists
INVENTOR(S): Ogawa, Masashi; Morita, Tadashi; Matsuda, Kiyoshi; Iibuchi, Norihiro; Kidokoro, Shinpei
PATENT ASSIGNEE(S): Tobishi Pharmaceutical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 710661	A1	19960508	EP 1995-401889	19950811
EP 710661	B1	19990331		
R: DE, FR, GB, IT				
JP 08119940	A2	19960514	JP 1994-286138	19941027
JP 2796944	B2	19980910		
JP 08176144	A2	19960709	JP 1994-333776	19941219
US 5716958	A	19980210	US 1995-513018	19950809
CN 1121515	A	19960501	CN 1995-116200	19950906
CN 1056842	B	20000927		

PRIORITY APPLN. INFO.: JP 1994-286138 A 19941027

JP 1994-333776 A 19941219

OTHER SOURCE(S): MARPAT 125:87210

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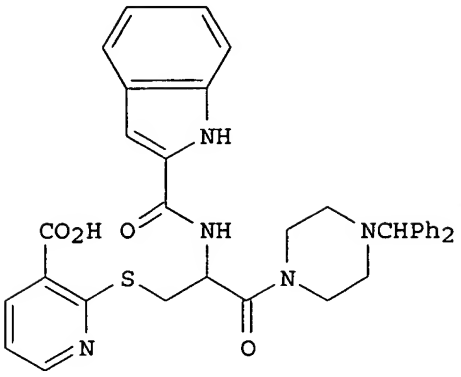


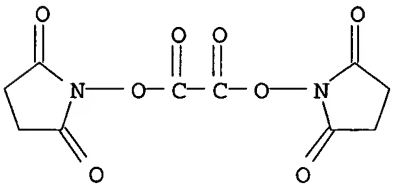
I

AB R3CONHCH[(CH2)mSnR2]COZCH(R1)2 [R1 = (cyclo)alkyl, Ph, pyridyl, etc.; R2 = carboxyphenyl, carboxypyridyl, carboxypyrazinyl, etc.; R3 = (un)substituted indolyl; Z = 1,4-piperidinylene, -piperazinylene; m = 1-3; n = 0 or 1] were prepared Thus, 1-benzhydrylpiperazine was amidated by (S)-ROCH2CH(NHCO2CMe3)CO2H (R = tetrahydropyranyl)(preparation given) and the deprotected and mesylated product thioetherified by Me 2-mercaptonicotinate to give, after N-deprotection and indole-2-carboxylic acid amidation, title compound (S)-I which had IC50 of 0.013 μM against CCK-induced guinea pig ileum contraction in vitro.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amino acid derivs. as cholecystokinin receptor antagonists)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:164884 HCAPLUS

DOCUMENT NUMBER: 120:164884

TITLE: Synthesis of 1,1'-bis[6-(trifluoromethyl)benzotriazolyl] phthalate as condensing agent

AUTHOR(S): Zhang, Mingzhu; Huang, Qun; Chen, Dehua

CORPORATE SOURCE: Shanghai Inst. Org. Chem., Shanghai, 200032, Peop. Rep. China

SOURCE: Huaxue Shiji (1993), 15(5), 306-7
CODEN: HUSHDR; ISSN: 0258-3283

DOCUMENT TYPE: Journal

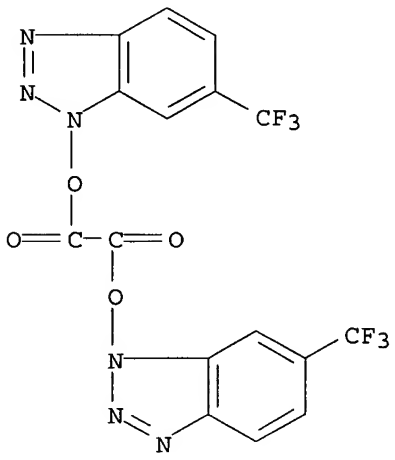
LANGUAGE: Chinese

AB Reaction of 1-hydroxy-6-(trifluoromethyl)benzotriazole with oxalyl chloride and phthaloyl chloride gave 1,1'-bis(6-trifluoromethylbenzotriazolyl) oxalate(BTBO) and 1,1'-bis(6-trifluoromethylbenzotriazolyl)-phthalate(BTBP). BTBO and BTBP were excellent condensation reagents for synthesis of dipeptides.

IT **93605-83-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as condensing agent for peptide synthesis)

RN 93605-83-5 HCAPLUS

CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:536079 HCAPLUS

DOCUMENT NUMBER: 115:136079

TITLE: Preparation of luminarins, i.e. derivatives of tetrahydro-2,3,6,7,1H,5H,11H-(1)benzopyrano[6,7,8-ij]quinolizin-11-one as markers for organic compounds for detection by chemiluminescence or fluorescence

INVENTOR(S): Reveilleau, Pierre; Mahuzier, Georges; Chalom, Joseph; Farinotti, Robert; Tod, Michel; Barre, Edith

PATENT ASSIGNEE(S): Laboratoires Eurobio, Fr.

SOURCE: Eur. Pat. Appl., 45 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

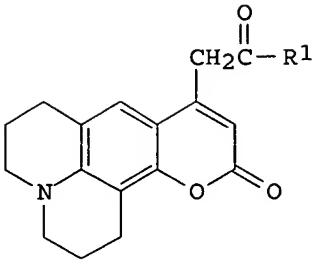
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 432017	A1	19910612	EP 1990-403379	19901128
EP 432017	B1	19950816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2655045	A1	19910531	FR 1989-15789	19891130
FR 2655045	B1	19920327		
US 5151517	A	19920929	US 1990-619189	19901127

PRIORITY APPLN. INFO.: FR 1989-15789 A 19891130

OTHER SOURCE(S): MARPAT 115:136079

GI



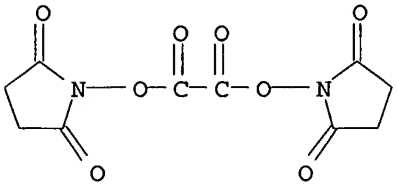
I

AB Title compds. I [R1 = NH(CH2)nR2, NH(CH2CH2O)mCH2CH2R3; n = 1-20; R2 = isothiocyanato, NHCOCH2X; X- = Cl, Br, iodo; m = 1-30, R3 = NH2, NHCO(CH2)pCO2R4, NHCO(CH2)pCONHNH2, as given for R2; R4 = succinimido; p = 1-10] are prepared as markers for detection (absorptimetric, fluorimetric, or chemiluminescence) of compds. containing primary or secondary amino, -SH, or -CO2- functions. Thus, cyclization of 8-hydroxyjulolidine with Et 3-oxoglutarate in EtOH containing ZnCl2 gave 56% ester I (R1 = OEt), which underwent 90% saponification, activation as I (R1 = succinimidyloxy) (21%), amidation by 1,4-diaminobutane (69%), and further amidation with iodoacetic anhydride (76%) to give Luminarine-5, i.e. I [R1 = NH(CH2)4NHCOCH2I] (II). In a borate buffer at pH 8, II was totally consumed by excess cysteamine (S-alkylation). Expts. using Coumarin 102, which bears the same ring nucleus as I, showed superior chemiluminescent yield vs. similar bicyclic Coumarin 1 and Coumarin 311.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of chemiluminescent and fluorescent markers)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:38559 HCAPLUS

DOCUMENT NUMBER: 114:38559

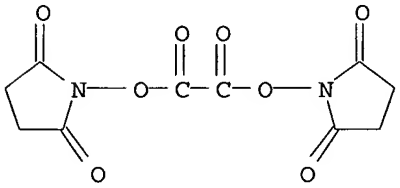
TITLE: Heterobifunctional cross-linking agents incorporating perfluorinated aryl azides

AUTHOR(S): Crocker, Peter J.; Imai, Nobuyuki; Rajagopalan, Krishnan; Boggess, Michael A.; Kwiatkowski, Stefan; Dwyer, Lori D.; Vanaman, Thomas C.; Watt, David S.

CORPORATE SOURCE: Dep. Chem., Univ. Kentucky, Lexington, KY, 40506, USA

SOURCE: Bioconjugate Chemistry (1990), 1(6), 419-24

CODEN: BCCHES; ISSN: 1043-1802
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title reagents have a photoactive tetrafluorinated Ph azide as the photoactive terminus and a chemical reactive succinimidyl ester as the electrophilic terminus. These reagents, succinimidyl N-(4-azido-2,3,5,6-tetrafluorobenzoyl)tyrosinate and succinimidyl 2-(4-azido-2,3,5,6-phenyl)thiazole-4-carboxylate, were designed to possess either 125I or 35S radiolabel, resp. The latter reagent was coupled to lysine-75 of calmodulin (CaM), and the radioiodinated monoadduct was photochem. crosslinked, in a Ca-dependent manner, to the porcine erythrocyte plasma membrane Ca2+, Mg2+-ATPase. t. Densitometry scans of the gel indicated a reproducible 22% crosslinkeing of the CaM with 1 of the Ca2+,Mg2+-ATPase bands. Since the purification of the Ca2+,Mg2+-ATPase results in micelles having Ca2+,Mg2+-ATPase with its CaM binding site oriented both to the inside and outside of the micelle, the amount of Ca2+,Mg2+-ATPase available for crosslinking was reduced by .apprx.50%, suggesting that the actual crosslinking efficiency was .apprx.40%.
IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (azidotetrafluorophenyl)carboxythiazole)
RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



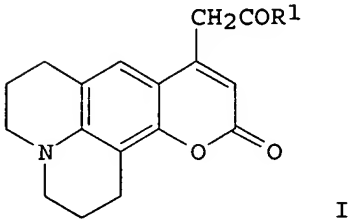
L16 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:423889 HCAPLUS
DOCUMENT NUMBER: 113:23889
TITLE: Benzopyranoquinolizinones as markers for chemicals for detection by chemiluminescence or fluorescence and their preparation
INVENTOR(S): Mahuzier, Georges; Chalom, Joseph; Farinotti, Robert; Tod, Michel
PATENT ASSIGNEE(S): Laboratoires Eurobio, Fr.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8912052	A1	19891214	WO 1989-FR277	19890602
W: DK, JP, NO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
FR 2632307	A1	19891208	FR 1988-7355	19880602
FR 2632307	B1	19911004		
CA 1312604	A1	19930112	CA 1989-601413	19890601

EP 419542	A1	19910403	EP 1989-907177		19890602
EP 419542	B1	19930929			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
US 5082942	A	19920121	US 1991-613644		19910131
PRIORITY APPLN. INFO.:			FR 1988-7355	A	19880602
			WO 1989-FR277	W	19890602

OTHER SOURCE(S): CASREACT 113:23889; MARPAT 113:23889

GI



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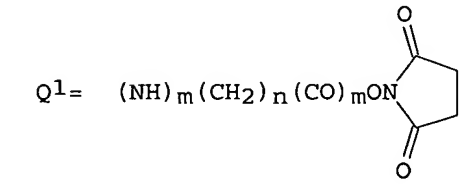

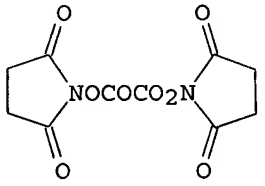

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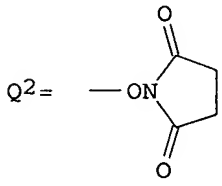
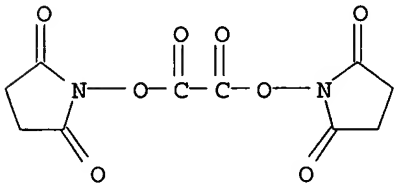


AB The title compds. I (R1 = Q1; m = 0 or 1; n = 0-12; n = 0 when m = 0; or R1 = NH(CH2)nNH2) were prepared Reaction of I (R1 = OH) with succinimide derivative II in the presence of Et3N gave quinolizinone I (R1 = Q2) (II). For II, the limit of detection by fluorescence was 380 fmol.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of marker for organic compds.)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



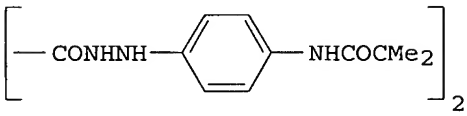
L16 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1990:188924 HCAPLUS
DOCUMENT NUMBER:	112:188924
TITLE:	Hydrazide-containing high-contrast silver halide photographic materials
INVENTOR(S):	Takamukai, Yasuhiko
PATENT ASSIGNEE(S):	Konica Co., Japan

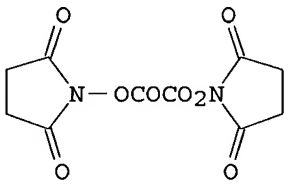
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01283550	A2	19891115	JP 1988-115152	19880510
JP 2564170	B2	19961218		
PRIORITY APPLN. INFO.:			JP 1988-115152	19880510

GI



I

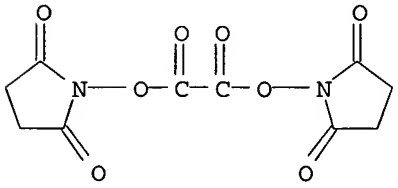


II

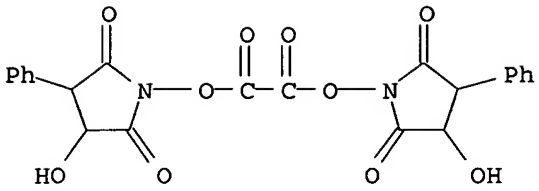
AB Hydrazine derivs. are contained in photosensitive emulsion layer(s), and N,N'-disuccinimide oxalate or its derivative, in hydrophilic colloid layer(s), of the title materials. This provides stable formation of high-contrast images without formation of so-called pepper and other fogs in background. Thus, a Ag(Cl,Br) (KBr 40 mol%) mixed with a hydrazide I (20μmol/mol Ag) was applied on a PET base, and this layer was coated with a gelatin protective layer containing II (0.2 mmol/mol Ag). Exposed and developed film showed high sensitivity, high contrast, and total absence of pepper.

IT **57296-03-4 125573-57-1 126531-49-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. hardening agent, hydrazide-containing photog. films containing, for prevention of fog)

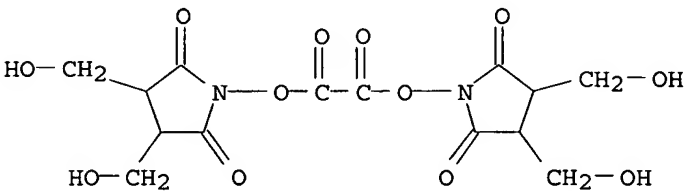
RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



RN 125573-57-1 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3-hydroxy-4-phenyl- (9CI) (CA INDEX NAME)



RN 126531-49-5 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3,4-bis(hydroxymethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:108471 HCAPLUS
DOCUMENT NUMBER: 112:108471
TITLE: Silver halide photographic sensitive materials containing new film curing agents
INVENTOR(S): Takamukai, Yasuhiko; Hanyu, Takeshi
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01198744	A2	19890810	JP 1988-23484	19880203

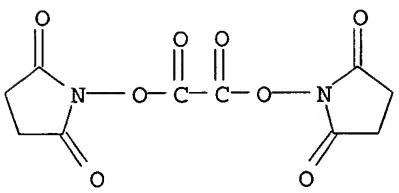
PRIORITY APPLN. INFO.: JP 1988-23484 19880203

AB In a Ag halide photog. sensitive material comprised of a support and ≥1 photosensitive Ag halide emulsion-containing hydrophilic colloidal layer, gelatin in the hydrophilic colloidal layer is cured by ≥1 of N,N'-disuccinimido oxalate compound or its derivative The film curing agent prevents gelatin and Ag halide dissoln. in a developer, contamination of a developer with gelatin, and stains on films. A Ag halide photog. paper having Ag halide-containing gelatin emulsion layers containing N,N'-disuccinimido oxalate as film curing agent was exposed, developed, and fixed, and gelatin dissoln. in the developer was limited to very low level.

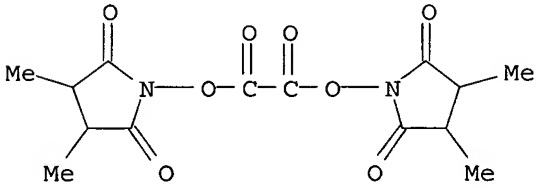
IT **57296-03-4 125573-55-9 125573-56-0 125573-57-1 125573-58-2 125573-59-3**
RL: USES (Uses)
(silver halide gelatin emulsion layer containing, for prevention of gelatin dissoln. in developer)

RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI)

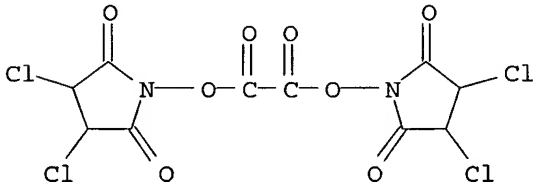
(CA INDEX NAME)



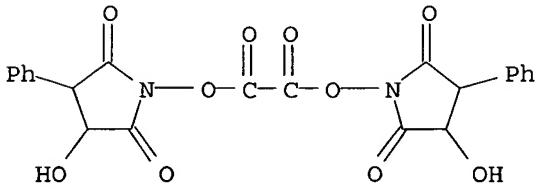
RN 125573-55-9 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3,4-dimethyl- (9CI) (CA INDEX NAME)



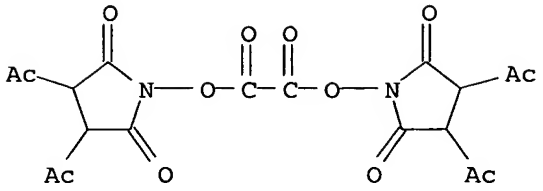
RN 125573-56-0 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3,4-dichloro- (9CI) (CA INDEX NAME)



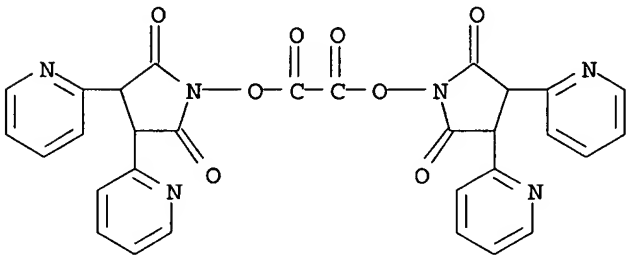
RN 125573-57-1 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3-hydroxy-4-phenyl- (9CI) (CA INDEX NAME)



RN 125573-58-2 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3,4-diacetyl- (9CI) (CA INDEX NAME)



RN 125573-59-3 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3,4-di-2-pyridinyl- (9CI) (CA INDEX NAME)

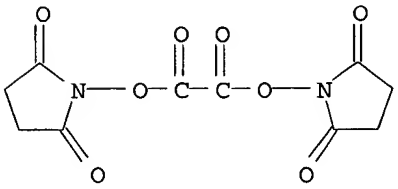


L16 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:48466 HCAPLUS
DOCUMENT NUMBER: 112:48466
TITLE: Characterization of the reaction products of adult human hemoglobin and disuccinimidyl oxalate
AUTHOR(S): Marini, M. A.; Christensen, S.; Snell, S.; Jessee, R.; Medina, F.; Zegna, A.
CORPORATE SOURCE: Div. Blood Res., Letterman Army Inst. Res., Presidio San Francisco, CA, 94129, USA
SOURCE: Biopolymers (1989), 28(12), 2195-200
CODEN: BIPMAA; ISSN: 0006-3525
DOCUMENT TYPE: Journal
LANGUAGE: English

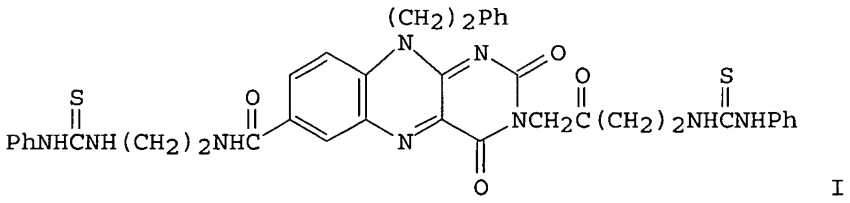
AB The reaction of both oxy and deoxy adult human Hb with the carboxyl activating agent disuccinimidyl oxalate (DSO) gave derivs. with decreased O binding (elevated P50); the P50's were slightly higher with the deoxyHb derivs. but their MetHb formation was slightly lower. The P50 values were maximum when equimolar concns. of Hb and DSO reacted. The O equilibrium curve showed a loss of cooperativity compared with native Hb which may not be desirable. There was little intermol. crosslinking, and the prepns. were eluted with the native Hb on gel exclusion columns. The derivs. had the same oncotic pressure as the native Hb, which is a disadvantage for their use as blood substitutes. On the other hand, the Hb derivs. were formed without the addition of other moieties and the P50 values were nearly the same as those of the normal Hb. The preparation can use both oxy and deoxyHb and equivalent amts. of DSO at room temperature with very little MetHb formation and good yields of separable products. The use the product as an emergency resuscitation fluid in shock therapy is discussed.

IT **57296-03-4DP**, reaction products with human Hb
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for resuscitation in shock)
RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:603872 HCAPLUS
DOCUMENT NUMBER: 111:203872
TITLE: Construction of a stable flavin-gold electrode displaying very fast electron transfer kinetics
AUTHOR(S): Edwards, Timothy R. G.; Cunnane, Vincent J.; Parsons, Roger; Gani, David
CORPORATE SOURCE: Dep. Chem., Univ. Southampton, Southampton, SO9 5NH, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1989), (15), 1041-3
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

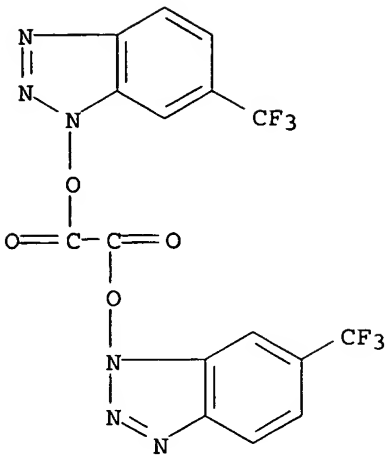


I

AB The bis-phenylthiourea phenethylisoalloxazine (I) was synthesized and was attached to the surface of Au through its thiourea side-chains. Cyclic voltammetric investigation of the redox properties of the system confirmed that the flavin was a stable adsorbed species and revealed that electron transfer between the conductor and the flavin was very fast.

IT **93605-83-5**
RL: PRP (Properties)
(activation by, of isoalloxazine diacid derivative for subsequent reaction with (aminoethyl)phenylthiourea)

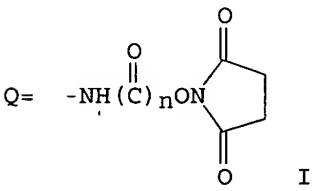
RN 93605-83-5 HCAPLUS
CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1989:595406 HCAPLUS
DOCUMENT NUMBER: 111:195406
TITLE: A process for preparing succinimidyl carbamate or oxamate-containing chromatography carriers and their use for enzyme mobilization and preparation of chromatographic chiral stationary phases
INVENTOR(S): Ogura, Haruo; Takeda, Kazuisa; Iwaki, Kazuo; Yoshida, Sadahiro; Futamura, Noriyuki; Kinoshita, Toshio
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63232846	A2	19880928	JP 1987-64119	19870320

PRIORITY APPLN. INFO.: JP 1987-64119 19870320
OTHER SOURCE(S): MARPAT 111:195406
GI



I

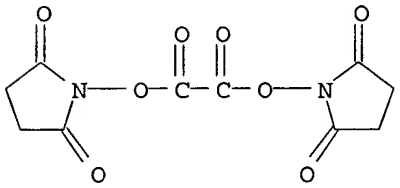
AB The title active esters, useful as activated carriers for anal., enzyme immobilization, and preparation of chromatog. chiral stationary phases, are prepared by reaction of amino-containing chromatog. carriers, more specifically aminopropyl- or alkylaminopropyl-containing silica gel, with N,N'-disuccinimidylcarbonate or N,N'-disuccinimidyloxalate. Thus, 0.5%

N,N'-disuccinimidyloxalate in MeCN was passed at 0.5 mL/h for 3 h through a slurry-packed column (6.0 + 100 mm) of Nucleosil 5-NH2 (aminopropyl silica gel) (Nagel company) followed successively by 0.5% pentaethylenehexamine in MeCN at 0.5 mL/h for 3 h and 0.5% (S)-(-)-succinimido-1-(1-naphthyl)ethylcarbamate in MeCN at 0.5 mL/h for 5 h and throughly washed with MeCN to give a chiral stationary phase-packed column for high-performance liquid chromatog. N-(p-Bromophenylcarbamyl) derivs. of 9 DL-amino acids, e.g. threonine, tyrosine, and isoleucine, were resolved by the above HPLC column using 0.15 M AcONa (pH 5)/MeCn (30/70) as a mobile phase.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of nucleosil 5-NH2)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:37800 HCAPLUS

DOCUMENT NUMBER: 108:37800

TITLE: An improved synthesis of 1,3-dihydro-1-methyl-5-phenyl-2H-pyrido[3,4-e]-1,4-diazepin-2-one via ortho-directed lithiation of 3-[(tert-butylcarbonyl)- and 3-[(tert-butoxycarbonyl)amino)pyridine]

AUTHOR(S): Fiakpui, Charles Y.; Knaus, Edward E.

CORPORATE SOURCE: Fac. Pharm. Pharm. Sci., Univ. Alberta, Edmonton, AB, T6G 2N8, Can.

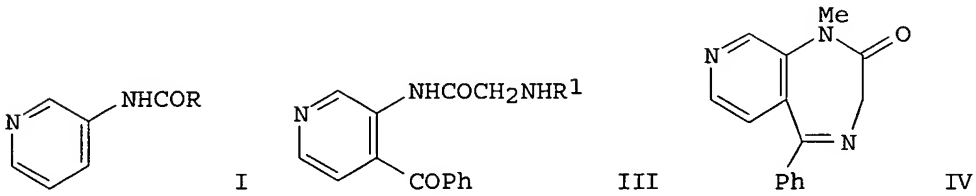
SOURCE: Canadian Journal of Chemistry (1987), 65(6), 1158-61
CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:37800

GI



I III IV

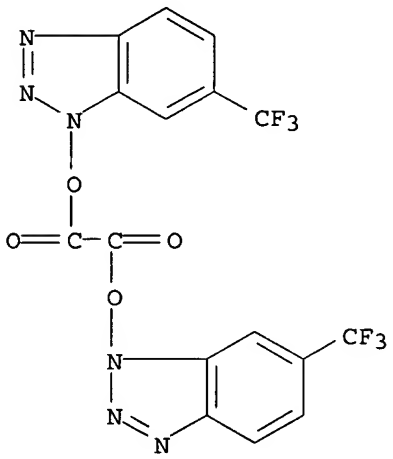
AB The ortho-directed lithiation of the title compds. I (R = CMe3, OCMe3) with alkyllithiums and benzoylation with PhCONEt2 followed by acid hydrolysis gave 63-66% 3-amino-4-benzoylpyridine (II). Amidation of R1NHCH2CO2H (R1 = PhCH2O2C, Me3CO2C) with II afforded[[(aminomethyl)carbon

yl]amino]benzoylpyridines III (same R1). Acid-catalyzed hydrolysis and cyclocondensation of III, followed by methylation gave pyridodiazepinone IV in 36% overall yield from I.

IT **93605-83-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling reagent, for acylation of aminobenzoylpyridine with amino acid derivative)

RN 93605-83-5 HCAPLUS

CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1987:84339 HCAPLUS

DOCUMENT NUMBER: 106:84339

TITLE: A synthesis of succinimides and glutarimides from cyclic anhydrides

AUTHOR(S): Kometani, Tadashi; Fitz, Tony; Watt, David S.

CORPORATE SOURCE: Dep. Chem., Toyama Natl. Coll. Technol., Toyama, 930-11, Japan

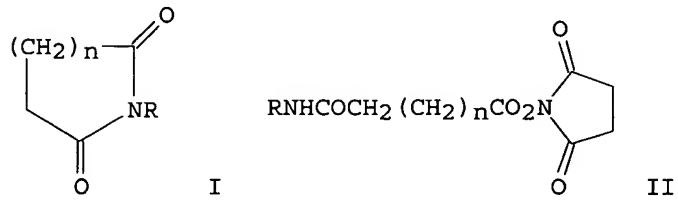
SOURCE: Tetrahedron Letters (1986), 27(8), 919-22
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 106:84339

GI



I II

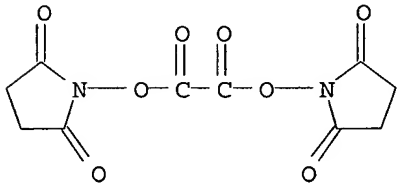
AB The transformation of cyclic anhydrides to their corresponding imides I (n = 1, R = Bu, Ph, CH2Ph; n = 2, R = Bu, Ph, CH2Ph, CHMePh) involves a mild three-step sequence: reaction with a primary amine, conversion of the

intermediate monoamide to an N-hydroxysuccinimidyl ester II using N,N'-disuccinimidyl oxalate, and cyclization by heating II in trichloroethylene in the presence of 4-(dimethylamino)pyridine.

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with glutaramic acids, succimidyl esters from)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1987:29378 HCAPLUS

DOCUMENT NUMBER: 106:29378

TITLE: Synthesis of 2-phenylthiazolidine-4-carboxylic acid derivatives and investigation of their radioprotective properties

AUTHOR(S): Pavlova, L. A.; Komarova, T. V.; Davidovich, Yu. A.; Rogozhin, S. V.; Puchkova, S. M.; Tuzhilkova, T. N.

CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1986), 20(9), 1083-8
CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal

LANGUAGE: Russian

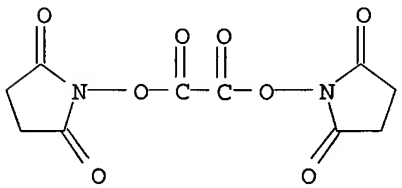
OTHER SOURCE(S): CASREACT 106:29378

AB A number of derivs. of 2-phenylthiazolidine 4-carboxylic acid were prepared, and their toxicities and radioprotectant activities in mice were determined

IT **57296-03-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with butyloxycarbonylphenylthiazolidincarboxylic acid)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:88559 HCAPLUS

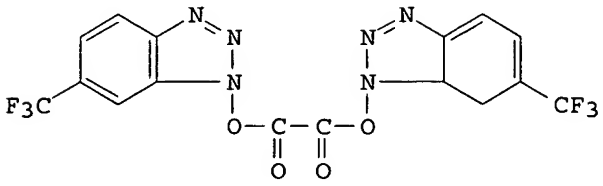
DOCUMENT NUMBER: 104:88559

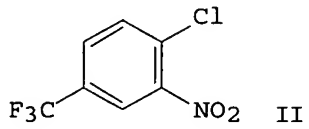
TITLE: Triazolyl oxalate deriv

INVENTOR(S): Okura, Haruo; Takeda, Kazuisa
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60166670	A2	19850829	JP 1984-21998	19840210

PRIORITY APPLN. INFO.: JP 1984-21998 19840210
OTHER SOURCE(S): CASREACT 104:88559
GI


I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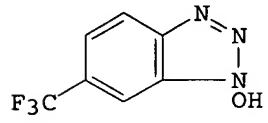
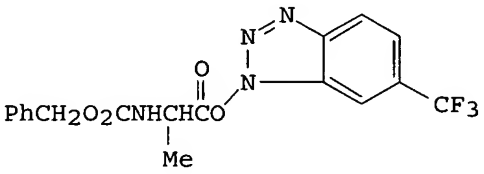

III

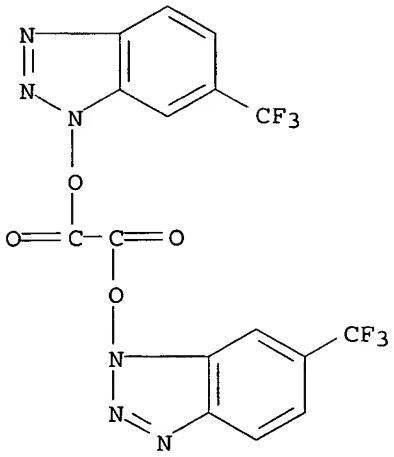

IV

AB Title compound (I), useful for activating amino acids in peptide synthesis, was prepared Thus, refluxing chlorobenzene derivative II with NH2NH2.H2O for 24 h gave 95.8% III, which was treated with (COCl)2 under stirring to give 75% I. Treating Z-Ala-OH (Z = PhCH2O2C) with I in the presence of pyridine gave alanine ester IV, which was stirred with H-Ala-OEt.HCl in the presence of NEt3 for 3-5 h to give 100% Z-Ala-Ala-OEt.

IT **93605-83-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as activating agent for amino acids)

RN 93605-83-5 HCAPLUS

CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:422924 HCAPLUS
DOCUMENT NUMBER: 103:22924
TITLE: Activating agents for amino acids
PATENT ASSIGNEE(S): Okura, Haruo, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

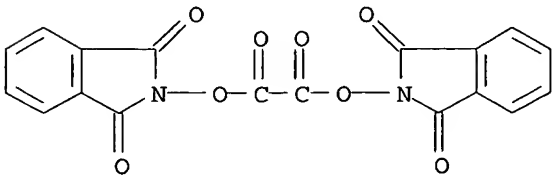
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60013757	A2	19850124	JP 1983-118111	19830701

PRIORITY APPLN. INFO.: JP 1983-118111 19830701
OTHER SOURCE(S): CASREACT 103:22924

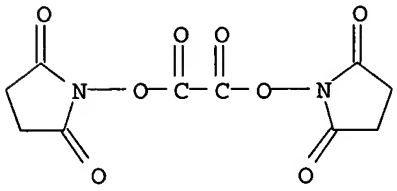
AB (RO2C)2 I [R = succinimido, 1H-benzotriazol-1-yl (II), etc.] were prepared as activation agents for peptide coupling reactions. Thus, 25.4 g (ClCO)2 was added to a solution of 13.5 g 1-hydroxy-1H-benzotriazole in dioxane/THF to give, after several minutes-several hours, 95% II. Z-Phe-OH (Z = PhCH2O2C) was coupled with H-Gly-OEt.HCl by II in MeCN containing pyridine and Et3N to give 96.4% Z-Phe-Gly-OEt.

IT **17447-57-3P 57296-03-4P 89028-39-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as activating agent for amino acid in peptide coupling reactions)

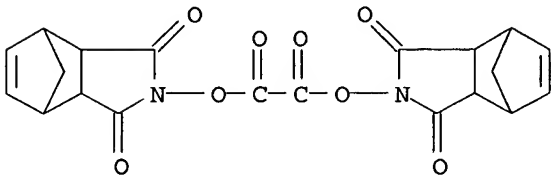
RN 17447-57-3 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



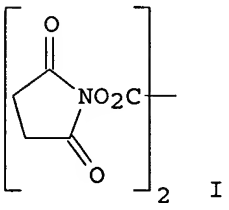
RN 89028-39-7 HCAPLUS
CN 4,7-Methano-1H-isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3a,4,7,7a-tetrahydro- (9CI) (CA INDEX NAME)



L16 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:422922 HCAPLUS
DOCUMENT NUMBER: 103:22922
TITLE: Bis(N-hydroxysuccinimide) ester of oxalic acid as a reagent for the synthesis of N-hydroxysuccinimide esters of N-substituted amino acids
INVENTOR(S): Komarova, T. V.; Davidovich, Yu. A.; Rogozhin, S. V.
PATENT ASSIGNEE(S): Institute of Heteroorganic Compounds, Academy of Sciences, U.S.S.R., USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1985, (1), 96. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1133272	A1	19850107	SU 1983-3603989	19830428

PRIORITY APPLN. INFO.: SU 1983-3603989 19830428
OTHER SOURCE(S): CASREACT 103:22922
GI



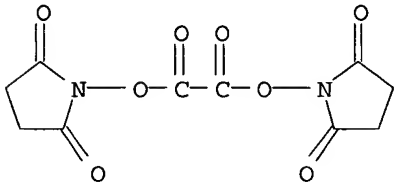
I

AB Title ester I is recommended as a reagent for the synthesis of N-hydroxysuccinimide esters of N-substituted amino acids.

IT **57296-03-4P**
RL: PREP (Preparation)
(reagent for synthesis of hydroxysuccinimide esters of N-substituted amino acids)

RN 57296-03-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:62573 HCAPLUS

DOCUMENT NUMBER: 102:62573

TITLE: 1,1'-Bis[6-(trifluoromethyl)benzotriazolyl] oxalate (BTBO): a new reactive coupling reagent for the synthesis of dipeptides, esters, and thio esters

AUTHOR(S): Takeda, Kazuyoshi; Tsuboyama, Kanoko; Yamaguchi, Keiko; Ogura, Haruo

CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan

SOURCE: Journal of Organic Chemistry (1985), 50(2), 273-5
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:62573

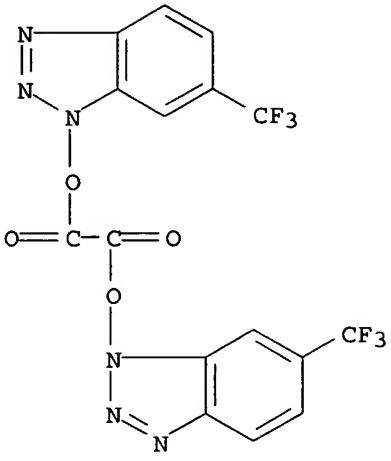
GI For diagram(s), see printed CA Issue.

AB The title compound (I) was prepared by cyclizing toluene II with H2NNH2 in refluxing 99% EtOH for 24 h and treating the resulting benzotriazole III with (COCl)2 in dry ether at room temperature I was used as a coupling reagent for the synthesis of dipeptides PhCH2O2C-X-X1-OEt (X = X1 = Ala; X = Ala, Phe, Val, X1 = Gly) in 70-99% yields. I was also used as a coupling reagent for the synthesis of esters and thioesters. With I active esterifications proceeded faster than with other previously reported reagents.

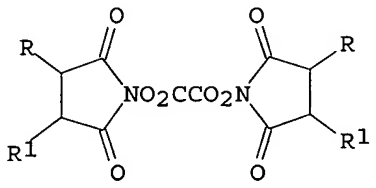
IT **93605-83-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as coupling reagent for preparation of peptides and esters and
thioesters)

RN 93605-83-5 HCAPLUS

CN 1H-Benzotriazole, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:121575 HCAPLUS
DOCUMENT NUMBER: 100:121575
TITLE: Studies on activating methods of functional groups. Part IX. A convenient synthesis of peptide using oxalates
AUTHOR(S): Takeda, Kazuyoshi; Sawada, Izumi; Suzuki, Akira; Ogura, Haruo
CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan
SOURCE: Tetrahedron Letters (1983), 24(41), 4451-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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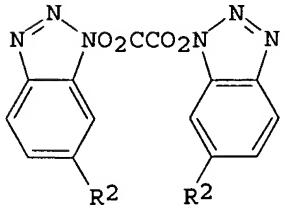
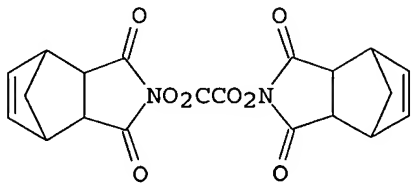


II

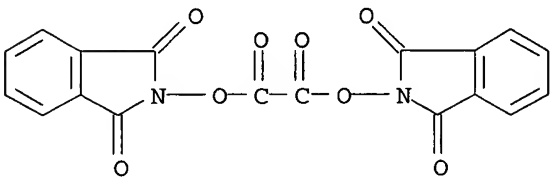


III

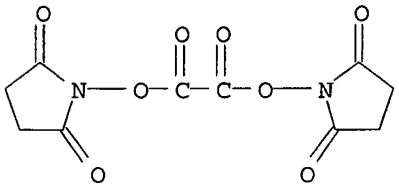
AB N-Protected amino acids were coupled with amino acid esters or amino acids by oxalates I (R = R1 = H, RR1 = benzo), II (R2 = H, Cl), and III in MeCN to give the corresponding dipeptides in good yields (64-100%) via active esters. I, II, and III were prepared by treating ClCOCOCl with the appropriate N-hydroxy imides or 1-hydroxybenzotriazole derivs.
IT **17447-57-3P 57296-03-4P 89028-39-7P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as peptide coupling reagent)

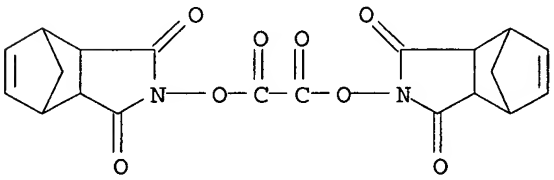
RN 17447-57-3 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



RN 89028-39-7 HCAPLUS
CN 4,7-Methano-1H-isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis[3a,4,7,7a-tetrahydro- (9CI) (CA INDEX NAME)



L16 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1976:584758 HCAPLUS
DOCUMENT NUMBER: 85:184758
TITLE: Chemiluminescence
INVENTOR(S): Bollyky, Laszlo J.; Weitman, Robert H.
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

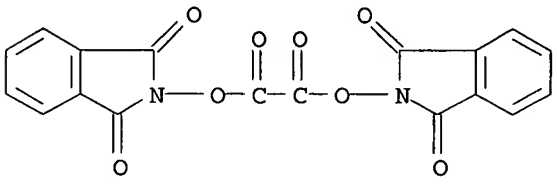
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3978079	A	19760831	US 1974-491450	19740724
US 3909440	A	19750930	US 1969-886395	19691218

PRIORITY APPLN. INFO.: US 1966-547761 A2 19660505
US 1969-886395 A3 19691212
US 1972-223793 A1 19720204

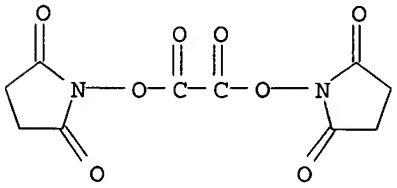
AB Chemiluminescent compns. for light-emitting devices for the range 350-800 μm were obtained by mixing the following: (1) an oxalyl-type O-oxalylhydroxylamine or another compound of the typical oxalyl-type O-acylhydroxylamine structure; (2) a hydroperoxide; (3) a fluorescent compound; and (4) a diluent. Thus, N-hydroxyphthalimide 1.63 g was dissolved in 100 ml of MeOCH2CH2OMe and during rapid stirring oxalyl chloride 0.43 ml and Et3N 1.4 ml were added at 25°. After 1 hr stirring the mixture was evaporated to dryness under vacuum and the solid residue was digested 3 times with 30 ml portions of CHCl3 to yield diphthalimido oxalate (I) m.p. 233-4° in 42% yield. Approx. 3.5 mg of I was added to a 5 ml solution of .apprx.1 mg of 9,10-diphenylanthracene and 0.2 ml of anhydrous H2O2 in anhydrous MeOCH2CH2OMe at 25°. The composition showed strong luminescence intensities when subjected to qual. chemiluminescent tests.

IT **17447-57-3 57296-03-4**
RL: PRP (Properties)
(chemiluminescent compns. containing)

RN 17447-57-3 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 34 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1975:600124 HCAPLUS
DOCUMENT NUMBER: 83:200124
TITLE: Chemiluminescence from O-oxalylhydroxyl amine compounds
INVENTOR(S): Bollyky, Laszlo J.; Whitman, Robert H.
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8

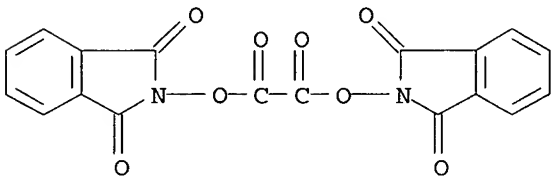
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3909440	A	19750930	US 1969-886395	19691218
US 3978079	A	19760831	US 1974-491450	19740724
PRIORITY APPLN. INFO.:			US 1966-547761 A2	19660505
			US 1969-886395 A3	19691212
			US 1972-223793 A1	19720204

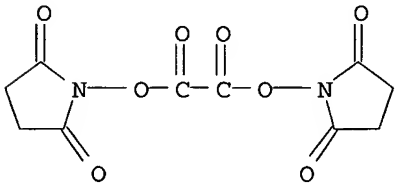
AB A chemiluminescent composition was obtained by mixing an oxalyl-type O-oxalylhydroxylamine or another compound of the oxalyl-type O-acylhydroxylamine structure, a hydroperoxide, a fluorescent compound, and a diluent. Thus, N-hydroxyphthalimide 1.63 g was dissolved in 1,2-dimethoxyethane 100 ml. and to the rapidly stirred solution, oxalyl chloride 0.43 and Et3N 1.4 ml. was added at 25°. After stirring the mixture for 1 hr, evaporating to dryness under vacuum, and digesting the solid residue 3 times with 30-ml. portions of CHCl3, diphthalimido oxalate (I), m.p. 233-4° was obtained in 42% yield. Strong chemiluminescent intensities were obtained when I .apprx.3-5 mg were added to a 5 ml. solution of 9-10 diphenylanthracene .apprx.1 mg and anhydrous H2O2 0.2 ml. in anhydrous 1,2-dimethoxyethane at 25°.

IT **17447-57-3 57296-03-4**
RL: PRP (Properties)
(chemiluminescent composition containing)

RN 17447-57-3 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)

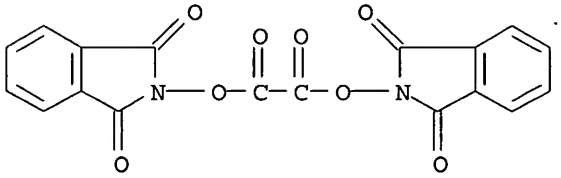


RN 57296-03-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1,1'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1969:10954 HCAPLUS
DOCUMENT NUMBER: 70:10954
TITLE: Chemiluminescence from the reaction of phthalimido oxalate with hydrogen peroxide and fluorescent compounds
AUTHOR(S): Bollyky, Laszlo J.; Whitman, R. H.; Roberts, Bernard G.

CORPORATE SOURCE: Amer. Cyanamid Co., Stamford, CT, USA
SOURCE: Journal of Organic Chemistry (1968), 33(11), 4266-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Phthalimido oxalate (I) (10-3M) reacts with H2O2 (0.024M) and 9,10-diphenylanthracene in di-Me phthalate and chemiluminescent light is produced; the quantum yield is 0.087 einstein mole-1. The quantum yield decreases when the concns. of I and H2O2 are increased.
IT **17447-57-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with 9,10-diphenylanthracene and hydrogen peroxide, chemiluminescence in relation to)
RN 17447-57-3 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



L16 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1968:21847 HCAPLUS
DOCUMENT NUMBER: 68:21847
TITLE: Preparation of chemiluminescent compounds
PATENT ASSIGNEE(S): American Cyanamid Co.
SOURCE: Neth. Appl., 49 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6612653	A	19670309	NL 1966-12653	19660908
US 3399137	A	19680827	US 1965-485920	19650908
US 3470103	A	19690930	US 1965-489748	19650923
US 3400080	A	19680903	US 1966-520044	19660112
US 3442815	A	19690506	US 1966-520052	19660112
SE 304974	B	19681014	SE 1966-12094	19660908
DE 1792774	A1	19750619	DE 1967-1792774	19660908
DE 1792774	B2	19810611		
DE 1792774	C3	19820513		
DE 1795795	A1	19750619	DE 1967-1795795	19660908
DE 1592824	B2	19810625	DE 1966-A53455	19660908
DE 1592824	C3	19820408		
US 3804891	A	19740416	US 1971-145569	19710520
NL 167462	B	19810716	NL 1976-14490	19761228
NL 7614490	A	19770429		
NL 167462	C	19811216		

PRIORITY APPLN. INFO.: US 1965-485920 A 19650908
US 1965-489748 A 19650923

US 1965-491896	A	19650930
US 1966-520044	A	19660112
US 1966-520052	A	19660112
US 1966-547761	A	19660505
US 1966-547782	A	19660505
US 1965-425599	A2	19651113
NL 1966-12653		19660908
US 1968-737307	A3	19680617

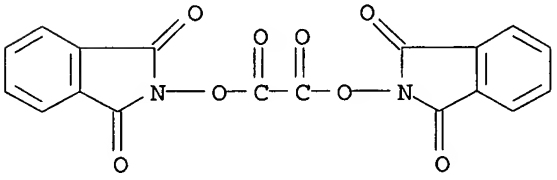
GI For diagram(s), see printed CA Issue.

AB Chemiluminescent compns. are prepared Ph3CCO2C(O)C(O)O2CCPh3 (3 mg.) was added to 1 mg. 9,10-diphenylanthracene, 0.25 ml. H2O, and 0.5 ml. 90% aqueous H2O2 in 5 ml. 1,2-dimethoxyethane at 25°. A strong blue light was emitted during 15-20 min. Addition of KOH diminishes the chemiluminescence. Similar mixts. were prepared with diacetic oxalic anhydride; dilauric oxalic anhydride; bis(4-methoxybenzoic oxalic anhydride; 2,2',4,4'-tetranitrooxanilide; N,N'-bis(phenylsulfonyl) oxanilide; bis(4-nitrophthalyl)oxamide; bis-1-imidazolyl)glyoxal; 2,4-dinitrophenyl oxalate; bis(1,2-dihydro-2-oxo-1-pyridyl)glyoxal (I); bis(5-oxo-1,5-dihydro-1-quinolyl)glyoxal diphthalimido oxalate dimaleimido oxalate and dipiperidyl oxalate I is prepared by adding 2.2 ml. oxalyl chloride and 5.05 g. triethylamine to a stirred solution of 4.76 g. 2-hydroxypyridine in 150 ml. 1,2-dimethoxyethane. After 1 hr., the solvent is distilled off, 25 ml. CHCl3 added and distilled off, and the residue recrystd. from benzene, yielding 2.76 g. I, m. 164-74°. Also, 10 ml. 1M aqueous Na2O2 was added to 0.2 g. 9,10-diphenyl-9,10-dihydroanthracene-9,10-dicarboxylic anhydride in 10 ml. tetrahydrofuran. Blue light was emitted. Similarly, chemiluminescent mixts. were prepared with 9,10-dichlorocarbonyl-9,10-diphenyl-9,10-dihydroanthracene; and 9,10-bis(4-nitrophenyloxycarbonyl)-9,10-diphenyl-9,10-dihydroanthracene.

IT **17447-57-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 17447-57-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[(1,2-dioxo-1,2-ethanediyl)bis(oxy)]bis-(9CI) (CA INDEX NAME)



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